

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-32. (canceled)

33. (withdrawn) A system for affecting a renal system in a patient, comprising:

a local renal drug delivery catheter having a body with a first end portion and a second end portion comprising a longitudinal axis and first and second conduits that branch in a bifurcated manner and extend distally from the first end portion along the longitudinal axis;

wherein each of the first and second conduits is coupled to a source of fluid agent;

wherein the second end portion is adapted to be delivered, in a first condition with the first and second conduits at radially collapsed positions relative to each other transverse to the longitudinal axis, at least in part to a location associated with first and second renal artery ostia along an abdominal artery;

wherein the second end portion is adjustable at the location from the first condition to a second condition with the first and second conduits at radially extended positions relative to each other transverse to the longitudinal axis and such that the first and second conduits are adapted to be positioned within first and second renal arteries associated with the first and second ostia, respectively; and

wherein the first and second conduits in their respective radially extended positions within the first and second arteries, respectively, are adapted to deliver the fluid agent simultaneously into the first and second renal arteries, simultaneously, respectively.

34-35. (canceled)

36. (withdrawn) The system of claim 33, wherein the fluid agent comprises a diuretic.

37. (withdrawn) The system of claim 33, wherein the fluid agent comprises Furosemide.

38. (withdrawn) The system of claim 33, wherein the fluid agent comprises Thiazide.

39. (withdrawn) The system of claim 33, wherein the fluid agent comprises a vasopressor.

40. (withdrawn) The system of claim 33, wherein the fluid agent comprises Dopamine.

41. (withdrawn) The system of claim 33, wherein the fluid agent comprises a vasodilator.

42-43. (canceled)

44. (withdrawn) An apparatus for locally perfusing one or more kidneys, comprising:

a catheter having:

a lumen;

an inlet end that includes at least one hole that communicates with the lumen; and

an outlet end that includes a first branch conduit with a first outlet port that communicates with the lumen and a second branch conduit with a second outlet port that communicates with the lumen;

a first engagement member coupled with the first branch conduit; and

a second engagement member coupled with the second branch conduit,

wherein the apparatus can be expanded from a folded configuration where the first branch conduit and the second branch conduit are folded side-by-side, to an expanded

configuration where first branch conduit and the second branch conduit extend outwardly from a bifurcation of the first and second branch conduits.

45. (withdrawn) The apparatus of claim 44, wherein the first engagement member comprises a rib or a barb.

46. (withdrawn) The apparatus of claim 44, wherein the first engagement member comprises an inflatable member.

47. (withdrawn) The apparatus of claim 44, wherein the first engagement member comprises a self-expanding hydrogel material.

48. (withdrawn) The apparatus of claim 44, wherein the first engagement member comprises a low density, biocompatible sponge-like material.

49. (withdrawn) The apparatus of claim 44, further comprising a strand of an elastic, high strength material embedded in the bifurcation.

50. (withdrawn) The apparatus of claim 49, wherein the strand comprises a nickel-titanium alloy.

51. (withdrawn) The apparatus of claim 44, further comprising a one-way valve that communicates with the lumen.

52. (withdrawn) The apparatus of claim 44, further comprising a blood pump that communicates with the lumen, wherein the blood pump comprises a member selected from the group consisting of an implantable blood pump and an external blood pump.

53. (withdrawn) The apparatus of claim 44, further comprising a drug infusion device that communicates with the lumen.

54. (withdrawn) An apparatus for locally perfusing one or more kidneys, comprising:
a catheter having:
a lumen;
an inlet end that includes at least one hole that communicates with the lumen; and
an outlet end that includes a first branch conduit with a first outlet port in fluid communication with the lumen and a second branch conduit with a second outlet port in fluid communication with the lumen;
a first engagement member coupled with the first branch conduit; and
a second engagement member coupled with the second branch conduit,
wherein the apparatus can be expanded from a folded configuration where the first branch conduit and the second branch conduit are folded side-by-side, to an expanded configuration where first branch conduit and the second branch conduit extend outwardly.

55. (withdrawn) The apparatus of claim 54, wherein the first engagement member can be expanded from a collapsed configuration to an expanded configuration.

56. (withdrawn) The apparatus of claim 54, further comprising a filament looped through an opening at a bifurcation of the first and second branch conduits.

57. (new) An apparatus for locally perfusing one or more kidneys, comprising:

a catheter having:
a central lumen;
an inlet end that includes at least one hole that communicates with the central lumen; and

an outlet end that includes a first branch conduit with a first outlet port that communicates with the central lumen and a second branch conduit with a second outlet port that communicates with the central lumen;
a strand of elastic, high strength material;
a first engagement member coupled with the first branch conduit, the first engagement member adapted to engage an interior surface of a first renal artery; and
a second engagement member coupled with the second branch conduit, the second engagement member adapted to engage an interior surface of a second renal artery,
wherein the apparatus can be expanded from a folded configuration where the first branch conduit and the second branch conduit are folded side-by-side, to an expanded configuration where the first branch conduit and the second branch conduit extend outwardly from a bifurcation of the first and second branch conduits, and
wherein the strand of elastic, high strength material is embedded in the bifurcation of the first and second branch conduits, and is adapted to ensure that the first and second branch conduits open outwardly when the bifurcation is pulled in a proximal direction.

58. (new) An apparatus for locally perfusing one or more kidneys, comprising:

a catheter having:
a central lumen;
an inlet end that includes at least one hole that communicates with the central lumen; and
an outlet end that includes a first branch conduit with a first outlet port that communicates with the central lumen and a second branch conduit with a second outlet port that communicates with the central lumen;
a one-way valve that communicates with the central lumen;
a first engagement member coupled with the first branch conduit, the first engagement member adapted to engage an interior surface of a first renal artery; and

a second engagement member coupled with the second branch conduit, the second engagement member adapted to engage an interior surface of a second renal artery,

wherein the apparatus can be expanded from a folded configuration where the first branch conduit and the second branch conduit are folded side-by-side, to an expanded configuration where first branch conduit and the second branch conduit extend outwardly from a bifurcation of the first and second branch conduits, and

wherein the one-way valve is adapted to open in a first configuration to permit flow along the central lumen in a first direction from the inlet end toward the first outlet port, the second outlet port, or both, and to close in a second configuration to inhibit flow along the central lumen in a second direction from the first outlet port, the second outlet port, or both, toward the inlet end.